Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of Preparation for International Telecommunication Union World Radiocommunication Conference	))))	IC Docket No. 94-31

JOINT COMMENTS OF THE ASSOCIATION FOR MAXIMUM SERVICE TELEVISION, INC. AND OTHER MAJOR TELEVISION BROADCASTING ENTITIES

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JOINT COMMENTS OF THE ASSOCIATION FOR MAXIMUM SERVICE TELEVISION, INC. AND OTHER MAJOR TELEVISION BROADCASTING ENTITIES

The Association for Maximum Service Television, Inc. ("MSTV"), and the Association of America's Public Television Stations; Capital Cities/ABC, Inc.; CBS Inc.; Chris-Craft/United Television Stations Group; FOX, Inc.; Fox Broadcasting Stations, Inc.; the National Association of Broadcasters; National Broadcasting Company, Inc.; Public Broadcasting Service; the Radio-Television News Directors Association ("RTNDA"), and the Society of Broadcast Engineers, Inc. ("SBE") (the "Joint Commenters") hereby file comments in response to the Second Notice of Inquiry, IC Docket No. 94-31, released in the above captioned docket on January 31, 1995 (the "Notice").[1/]

[1/] MSTV is a non-profit trade association of local broadcast television stations committed to achieving and maintaining the highest technical quality for the local broadcast system. NAB is a non-profit, incorporated association of radio and television stations and networks which serves and represents the American broadcast industry. RTNDA is a non-profit trade association of local and network news executives, educators, students, and others devoted exclusively to electronic journalism. SBE is a national association of broadcast engineers and technical communication professionals that support a volunteer group of over 100 broadcast auxiliary frequency coordinators. The other Joint Commenters include

(continued...)

INTRODUCTION AND SUMMARY

What is at stake here and in the two companion proceedings[2/] is no less than the ability of the public to receive free, universal, and locally-based television service as facilitated and enhanced by electronic news gathering and other auxiliary services. These services are made possible by the broadcasting community's state-of-the-art use of already congested auxiliary broadcast spectrum in the 1990-2110 MHz band.[3/] This band increasingly is taxed by new competitors who wish to add news and other locally-responsive programming, and will be swamped by the impending demands of digital ATV broadcasting.

Although some have urged broadcasters to use the existing auxiliary spectrum more intensively and efficiently,

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[1/](...continued)
major television broadcasting networks, affiliates, and affiliates' organizations. MSTV, NAB, RTNDA, SBE and the other Joint Commenters have a longstanding and vital interest in maintaining the viability of free, universal, over-the-air television broadcasting, and are deeply concerned about the need for continued uninterrupted access to sufficient auxiliary broadcast spectrum.

[2/] See In the Matter of Allocation of Spectrum Below 5 GHz Transferred from Federal Government Use, (First Report and Order/Second NPRM), ET Docket No. 94-32 (released February 17, 1995) (spectrum transfer docket); In the Matter of Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile Satellite Service, (NPRM), ET Docket No. 95-18 (released January 31, 1995).

[3/] The 1990-2110 MHz band is also shared on a primary basis with broadcast network mobile operations, mobile cable system operations, and cable network mobile operations. See 47 C.F.R. §§ 2.106, 74.602(a), 74.631(a), 78.11(f), 78.18(a)(7) (1994).

no one has demonstrated how this can be done. Broadcasters already spend substantial amounts of time and money each day to work around the enormous scarcity constraints that plague this spectrum in the most congested markets.[4/] This band of spectrum contains only seven channels,[5/] which is less than the number of program originators requiring access in many markets, and less than the number of systems some single program originators need on a daily basis. As a result, broadcasters and cablecasters have developed a system of coordination in real time.[6/] Even with this coordination system in place, congestion is so serious, and sharing so prevalent, that stations use split-channel and offset channel operations to maximize spectrum use.[7/]

In sum, broadcasters have undertaken creative efforts to use the available auxiliary spectrum efficently and intensively. They are also working toward the transition to a digital standard for auxiliary services. However, the

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4/ See Comments of MSTV, ET Docket No. 94-32, at 4-6 (June 15, 1994); Reply Comments of Capital Cities/ABC, ET Docket No. 94-32, at 2-4 (June 29, 1994); Reply Comments of Capital Cities/ABC, Engineering Statement of Kenneth J. Brown, ET Docket No. 94-32, at 1-3 (June 29, 1994).

5/ See 47 C.F.R. § 78.18(a)(7) (1994).

6/ Under this system, frequency coordinators allocate discrete blocks of time on an as-needed basis. See Comments of Capital Cities/ABC, Engineering Statement of Kenneth J. Brown, Gen. Docket No. 90-314, at 1 (September 28, 1990).

7/ See Comments of Capital Cities/ABC, Engineering Statement of Kenneth J. Brown, Gen. Docket No. 92-9, at 2 (July 7, 1992).

obstacles to this transition have proven much more intractable than for other services.[8/] And, even an effective and immediate solution to the technical problems would only moderate the need for additional spectrum, not obviate it or justify a reduction of existing spectrum, which is an implicit option in this docket (and an explicit option in ET Docket No. 95-18).

In the Notice, the Commission seeks comment on whether the United States should support an international allocation of the 1990-2025 MHz band for mobile satellite services (MSS). Notice, at ¶ 61 & table 5. The Commission notes that implementing such an allocation domestically would require a "potential domestic allocation adjustment." Id. at ¶ 61, table 5.

As will be explained more fully below and in comments filed separately in ET Docket No. 95-18,[9/] broadcasters place heavy reliance on the 1990-2110 MHz band to support a variety of broadcast auxiliary services. The allocation of the 1990-2025 MHz band to MSS services would

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[8/] To date, highly compressed digital modulation schemes have not demonstrated the robustness necessary for mobile use and non-engineered paths, nor has prototype digital equipment possessed the portability required for mobile operations.

[9/] In ET Docket No. 95-18, the Commission is considering whether to allocate the 1990-2025 MHz band to MSS domestically. The Joint Commenters intend to file comments in this docket on May 5, 1995. However, we believe that the status of this proceeding will of necessity be largely contingent on the outcome of the ITU's deliberations regarding new global MSS spectrum allocations.

make intolerable the crowding that already exists in this band.

In consequence, the Joint Commenters urge that the United States not support an ITU allocation of the 1990-2025 MHz band to MSS until the Commission has resolved the outstanding questions regarding the feasibility of such an allocation domestically and made compensatory adjustments elsewhere. Indeed, the question of an appropriate spectrum allocation for MSS could easily be taken up at WRC-97, after the domestic issues have been resolved. By the same token, there is no need to advance the effective date of any global MSS allocations in the 1990-2110 MHz band because it is unlikely that the spectrum in this band could be used for MSS operations in the United States for at least several years.

I. Auxiliary Broadcast Spectrum in the 1990-2110 MHz Band Is Critical to the Public's Service from Local Broadcast Stations, and Is Already Overburdened.

The Commission has presently allocated television broadcasters three primary spectrum bands, 1990-2110 MHz, 6875-7125 MHz, and 12.70-13.25 MHz,[10/] for auxiliary operations, including electronic news gathering ("ENG"), intercity relays ("ICRs"), and studio-to-transmitter links ("STLs"). These operations are critically important elements of the live and near-live services provided daily by

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[10/] Unlike the other two auxiliary bands, in the 12.70-13.25 MHz band, broadcast network, cable network, and cable system fixed operations enjoy co-primary status. See 47 C.F.R. §§ 2.106, 74.602(a), 74.631(j), 78.11(f), 78.18(a)(7) (1994).

television broadcasters and cablecasters to all of the American public.

Of the three bands, the 2 GHz band enjoys the heaviest usage, primarily because of the proliferation of highly mobile local news gathering operations that can function effectively only in this lower frequency range. Broadcasters rely on the 2 GHz band to support electronic news gathering operations because the band has particularly favorable propagation characteristics for mobile operations and long haul transmissions. Signals in the 2 GHz band carry farther and are able to overcome obstacles more easily than signals in higher frequency bands (i.e., the 12 GHz band).[11/] This is crucial to ENG operations because news stories can break at any time, and at any place.

Because of these favorable propagation characteristics, it is not feasible to relocate ENG operations to alternate spectrum in significantly higher frequency bands. Moreover, at present there is no equipment to support ENG operations in such bands, and none appears to be in the offing, principally because of a number of engineering problems that would have to be overcome in order to account

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[11/] The versatility of the 2 GHz band is needed to overcome blocked paths in major cities (building bounce), foliage attenuation, and ducting and rain attenuation. See Comments of Capital Cities/ABC, Engineering Statement of Kenneth J. Brown, ET Docket No. 92-9, at 8-9 (June 4, 1992).

for the propagation characteristics of signals transmitted in other, higher bands.[12/]

Local broadcasters' ability to cover news of the day is largely, if not completely, dependent on access to adequate spectrum in the 2 GHz band. Whether reporting from an air crash site, a political convention, or a gala premiere, broadcasters rely on spectrum in the 2 GHz band to transmit their pictures and sound back to the main studio. The networks also rely on spectrum in this band to collect news and other feeds for local affiliates. Thus, the ability of the major networks to provide comprehensive coverage of national events also rests on access to adequate spectrum in the 2 GHz band.[13/]

In recent years, many local television stations have dramatically increased the scope of their local news coverage.[14/] Just the amount of time devoted to local news

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[12/] Broadcasters have filed comments requesting the allocation of additional spectrum for broadcast auxiliary use in the 4660-4685 MHz band, and will comment in ET Docket No. 94-32 to that effect. Access to this spectrum would go a long way toward eliminating congestion in the existing bands.

[13/] Reply Comments of Capital Cities/ABC, Engineering Statement of Kenneth J. Brown, ET Docket No. 94-32, at 2-3 (June 29, 1994).

[14/] As former-Chairman Sikes explained to a congressional subcommittee in sworn testimony in 1991:

> According to the Woodrow Wilson Center for Media Research, which is part of the Smithsonian Institution, there has been approximately a three-fold increase in local television news programming

(continued...)

has increased tremendously. The number of stations providing local news, particularly new Fox affiliates, has expanded. And many local stations are less likely to rely on network footage to cover important news events; they increasingly prefer to have their own correspondents provide coverage.

Plainly, news coverage -- national, regional, and local -- serves the public interest by functioning as a lifeline in times of crisis,[15] informing the community about important public affairs issues (including elections), and helping to foster a sense of community by covering charitable, cultural, and athletic events. News coverage significantly enhances the local nature of broadcast television. Locally-responsive broadcast service necessarily includes daily efforts outside the station studio in the general community --

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[14] (...continued)
in major markets since 1980. During the 1980s, the Television Information Office published several studies marking this phenomenon, showing that network affiliates increased local news coverage by 10 percent each year in both the morning and prime-time access day parts from 1986-1988.

Statement of Alfred C. Sikes, FCC Chairman, Hearings on S. 352 Before the Senate Subcommittee on Communications, 102d Cong., 1st Sess. 11 (1991); see also Clarke, "Exec Keeps TV News Organization Moving, Evolving," Daily Variety, June 19, 1994, at 49 (describing the evolution of news programming from the days of news reels to the electronic age).

[15] For example, following the San Francisco earthquake of 1989, many people used battery-operated television sets to obtain the latest emergency information. See M. Lewenstein & J. Newhagen, Perception of Fear and Media Use During the Emergency Period Following the 1989 Loma Pietra Earthquake in the San Francisco Area 11 (1991).

efforts that permit broadcasters to provide community news and information to the viewer. The same is true for network news, which provides the nation with comprehensive coverage of fast-breaking news events on both a national and international scale.

The ability of local and network news providers to furnish live and/or remote coverage of events is contingent on the availability of adequate spectrum to support auxiliary and ENG operations. At present, insufficient spectrum is available to support the existing level of activity, and this shortage is going to become more acute. See R. Matheson & K. Steele, A Preliminary Look at Spectrum Requirements for the Fixed Services 40-41 (May 1993) (reporting that the 1990-2110 MHz band is "already crowded in many major markets," documenting a 14.6% annual rate of growth in broadcasters' use of the band from 1989-93, and projecting a 15% annual growth rate in use for the next five years) ("ITS Study"); "Creating New Technology Bands for Emerging Telecommunications Technology," FCC/OET TS92-1 (January 1992) (finding that a spectrum shortage already exists in 2 GHz band).[16/]

[16/] See also Reply Comments of MSTV, ET Docket No. 93-198, at 3-4 (July 29, 1993); Reply Comments of MSTV, Gen. Docket No. 89-554, at 3-4 (Jan. 8, 1991); Comments of Capital Cities/ABC, Engineering Statement of Kenneth J. Brown, Gen. Docket No. 90-314 (Oct. 1, 1990); see generally Comments of NAB, Gen. Docket No. 90-314 (Oct. 1, 1990); Comments of Capital Cities/ABC, Inc., Gen. Docket No. 90-314 (Oct. 1, 1990); Comments of Cox Broadcasting and Multimedia, Inc., Gen. Docket No. 90-314 (Oct. 1, 1990); Comments of H & C Communications, Inc., Gen. Docket No. 90-314 (Oct. 1, 1990).

These studies and others like them[17/] provide compelling evidence of a spectrum shortage for auxiliary broadcast operations. However, the lack of sufficient auxiliary spectrum is also demonstrated on a recurring basis in larger markets whenever news events occur that warrant ENG coverage. The auxiliary spectrum needs of broadcasters routinely exceed the available channel capacity whenever special events, such as the World Cup or even special news conferences, create additional demands on the broadcast auxiliary spectrum. The result is spectrum chaos. See, e.g., McConnell, "FCC Referees World Cup Broadcast Concerns," Broadcasting & Cable Magazine, June 6, 1994, at 54.

Repeatedly, the Commission has had to step in with emergency ad hoc spectrum allocations to ensure that local broadcasters can provide live coverage of important news, including political, cultural, and community events. However, all too often these ad hoc allocations have not provided adequate relief from the crowding conditions, and some broadcasters have still not enjoyed access to adequate

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17/ Multiple studies have demonstrated, time and again, that broadcast auxiliary spectrum is overcrowded. A study conducted six years ago found that broadcasters would need significantly more ENG capacity in the immediate future. E. Cohen, Television Auxiliary Frequencies Usage Surveys 4, 6-7 (June 23, 1989) (attached to the NAB's comments in Gen. Docket No. 90-314 (Oct. 1, 1990)) (the "Cohen Study"). Over 80% of the participants in the study reported congestion problems in their area. Id. at 6.

spectrum. Id.; see also ITS Study, at 41-42; Cohen Study, at 6-7.

ATV/NTSC dual mode broadcasting will also create additional demands on the available broadcast auxiliary spectrum. The crowding that already exists in the 1990-2110 MHz band will significantly increase with the advent of digital TV.[18/] The needs generated by dual ATV/NTSC broadcast operations will plainly exceed the capacity of already overburdened broadcast auxiliary spectrum.

Further crowding will lead to serious service disruptions and impede, if not entirely preclude, new competitors and additional service improvements in the future. Indeed, the ultimate question is whether the public should suffer a loss in both the quantity and quality of news and current events programming in order to accommodate new telecommunications services. Further degradation of broadcast auxiliary spectrum in the 2 GHz band, or additional restrictions on its use, will directly reduce the amount of on-the-spot local news and event coverage available to the American public.[19/] The Joint Commenters therefore urge the

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[18/] See ITS Study, at 41; NPRM, 7 FCC Rcd at 1544; Reply Comments of MSTV, ET Docket No. 93-198, at 4 & 4 n.5 (July 29, 1993).

[19/] Reply Comments of Capital Cities/ABC, Engineering Statement of Kenneth J. Brown, ET Docket No. 94-32, at 2-4 (June 29, 1994); see also Comments of Capital Cities/ABC, Engineering Statement of Kenneth J. Brown, Gen. Docket No. 90-214, at 3 (September 28, 1990).

United States delegation not to take positions at WRC-95 that will further exacerbate the overcrowding that currently exists in the 1990-2110 MHz band.

Any proposal by the United States at WRC-95 to allocate the 1990-2025 MHz band to MSS must be coupled with a firm and specific commitment to replace this auxiliary broadcast spectrum domestically.[20/] Before supporting any ITU actions that will significantly increase the overcrowding problem in the 2 GHz band, the Commission should seek out and implement a plan to provide additional bands of spectrum in the 2 GHz band that could successfully accommodate domestic broadcast auxiliary operations.

II. Implementation of ITU Allocations in the 1990-2110 MHz Band for MSS Operations Should Be Delayed Until Domestic Allocation Issues in the United States Have Been Resolved.

In the Notice, the Commission suggests that the implementation dates of international MSS spectrum allocations should be part of "an overall approach to making available the 2 GHz MSS spectrum." Notice, ¶ 67. In consequence, the

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[20/] The Commission has initiated a proceeding to consider whether to allocate the 1990-2025 MHz band to MSS operations domestically. See In the Matter of Amendment of Section 2.106 of the Commission's Rules to Allocate Spectrum at 2 GHz for Use by the Mobile-Satellite Service, (NPRM), ET Docket No. 95-18 (released January 31, 1995). The Joint Commenters' comments in this docket will explore more fully the feasibility of such a domestic allocation, with particular attention to the impact of such action on television broadcasters, and the terms and conditions that must be incorporated into any relocation plan in order to avoid serious disruption of broadcast auxiliary services.

Commission does not make any specific proposals regarding effective dates. Id.

The WARC-92 Final Report and Addendum allocated the 1970-2010 MHz band globally for primary use in MSS earth to space operations.[21/] ITU member states need not implement this allocation "before 1 January 2005." ITU, Addendum and Corrigendum to the Final Acts of the World Administrative Radio Conference, Malaga-Torremolinos, at 17 (1992). However, in the United States, the allocation will "not commence before 1 January 1996." Id.

The Joint Commenters support the Commission's approach to the issue of an appropriate effective date for any global MSS allocations in the 1990-2110 MHz band. The question of an appropriate effective date for MSS allocations in the 1990-2025 MHz band is inextricably intertwined with both domestic allocation issues and the agreement of other ITU members to support an advanced global implementation date. Simply put, there is no need to advance the effective date of the ITU MSS spectrum allocations until the questions regarding

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[21/] WARC-92 allocated a number of bands for MSS services. See ITU, Final Acts of the World Administrative Radio Conference (WARC-92) and Addendum and Corrigendum to the Final Acts of the World Administrative Radio Conference, Malaga-Torremolinos (1992); see also Redevelopment of Spectrum, (First Report and Order), 7 FCC Rcd 6886, 6887 & 6887 n.12 (1992) (listing the bands and uses allocated at WARC-92 to MSS).

the availability of the spectrum domestically are resolved.[22/]

Thus, the United States delegation should proceed cautiously when considering whether it would be appropriate to expedite the implementation date of the ITU's allocation of the 1970-2010 MHz band to mobile satellite services from the current effective date of January 1, 2005. The same holds true for any additional MSS allocation in the 1990-2110 MHz band that WRC-95 might endorse.

CONCLUSION

The Commission's decision to allocate the 1970-1990 MHz band to PCS has compromised the viability of the WARC-92 MSS allocations. Before the United States advocates another ITU allocation for MSS operations, it should first consider carefully whether the band it proposes for MSS operations will be available in the United States and how it will accommodate the public's very great stake in the existing broadcast auxiliary service that already is crammed into the 1990-2110 MHz band. Relatedly, the United States should not advocate an accelerated implementation date for the ITU MSS allocations if

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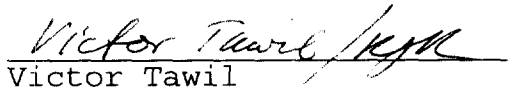
[22/] Even if the Commission ultimately decides to allocate the 1990-2025 MHz band to MSS, there will have to be a transition period during which displaced broadcast auxiliary operations are relocated to another band of spectrum. It is hopelessly unrealistic to believe that this transition could take place between now and January 1, 1996.

the spectrum at issue cannot be made available in the United States on or before the proposed global implementation date.

Respectfully submitted,

ASSOCIATION FOR MAXIMUM SERVICE TELEVISION, INC.



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